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THE MACDONALD LASSIE



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COVER: What is happening to Quebec's small communities? An article looks at four of these communities in this issue. In many all that is left is the church. But in the case of Bolton Glen in Brome County, it adds the final touch to a beautiful setting. Artist — R. D. Wilson, courtesy, Bank of Montreal.

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backing into the future

As Marshall McLuhan so aptly puts it, this generation is living in Bonanzaland. We love the past, and we reject the present. We speak of the "good old days" while we are disturbed by the "new morality". We hate change; it makes us uncomfortable. We drive the road to the future watching the rear-view mirror.

Change will come. This is the stuff that history is made of. The challenge to us as individuals and as communities is to turn the stream to our advantage, to make change work for us, to mould the future.

It is inevitable that many rural communities will disappear in the decade ahead. Professor Gillies Ross points out in his article in this issue that most of these small villages are becoming barren.

It is just as inevitable that a few rural communities will remain. In Quebec, these communities will be the ones in which the regional school is located. The regionalization of educational facilities is, in fact, the kiss of death for most of the small communities.

His findings could be generalized

to comparable small towns across Canada. Yet many residents in these small towns act like proverbial ostriches, hoping that if they don't look, maybe the towns will return to the good old places of 20 years ago. This looking through a rear-view mirror does no good and in fact discourages any improvements which could be made.

There seem then to be few choices. The English-speaking population of Quebec will polarize around the regional schools. In the context of economics, this is rational and reasonable. One reader has even suggested that all English-speaking farmers in Quebec should be relocated in the Ormstown area where they would have access to a regional school which is already offering an agricultural education program.

Whatever the case, people living outside the large metropolitan areas of Quebec, and especially English-speaking rural Quebecers, should not walk into the future backwards. They should contemplate their choices — if there are any to contemplate!

The Editor

in the Eastern Townships

decline of villages since 1867

by W. Gillies Ross,
Department of Geography,
Bishop's University,
Lennoxville, Que.

What is happening to Quebec's smaller communities? In this article, Prof. Ross of Bishop's University focuses on some changes of the past and predicts what could happen in the coming years. Using four communities as case-study areas, the data for this report was collected by students as a class project.

The Eastern Townships Gazetteer and General Business Directory of 1867 (reprinted in 1967 by Page-Sangster, Inc., Sherbrooke) provides concise descriptions of villages and towns in the Eastern Townships a century ago. The village of Massawippi, for example, contained "a good school, grist mill, two saw-and-carding mills, besides a cloth-dressing mill, all in operation." In addition, the gazetteer lists for the same village the names of three general merchants, one mason, two carpenters and joiners, one carriage and sleigh maker, one tanner and currier, one harness maker, two boot and shoe makers, one blacksmith, one teamster one tailor, one hotel proprietor, and one milliner and dressmaker. All this in a village of 175 persons! Today the same village has half as many people, and its commercial activities include a general store, an imported woollens shop, and a service station (for sale).

In order to obtain some insight into the changing nature of village life during the past century a study of four villages was undertaken by the Department of Geography, Bishop's University, during the academic year 1966-67. Twenty students participated. Their responsibilities, which were part of course requirements, included interviewing a person in each household; recording the function, size, age, condition, and construction material of each building; mapping the villages; and submitting term papers or maps analyzing some aspect of the village situation, against the background of historical change.

The students' term papers, early maps historical material and census information provided the basis for a report published in the spring of last year.*

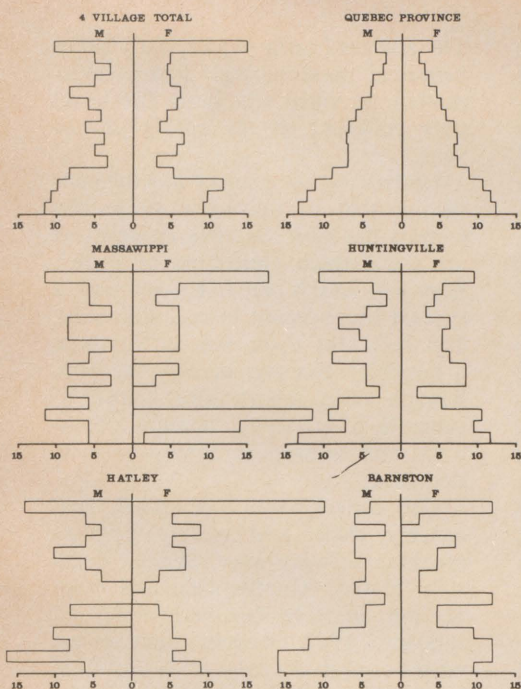
Underlying the project was the conviction that in university geography courses the most valuable assignments are ones which contribute to knowledge and which demand a substantial student involvement in real situations. The fact that there was in this case a tangible objective, namely the publication of a report, also helped to generate a gratifying amount of interest and enthusiasm among the participants.

For convenience, four small, reasonably close, and mainly English-speaking villages were chosen: Barnston, Hatley, Huntingville, and Massawippi. Between October, 1966, and January, 1967, student interviewers visited approximately 85% of the households and completed 145 questionnaires. The information requested from each head of household included his spoken language, religion, place of birth, date of arrival in the village, previous place of residence, reason for coming to the village, ownership or rental of house, size of lot, occupation, place of work, name of firm, method of commuting, and income group. The age, sex, and place of work or school of all other members of the household were recorded, as well as the age and sex of sons and daughters living elsewhere, their place of residence and reasons for moving out of the village.

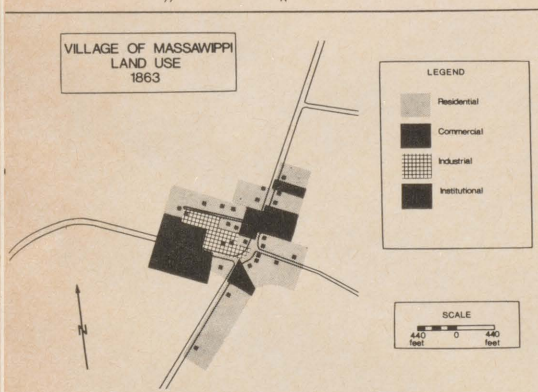
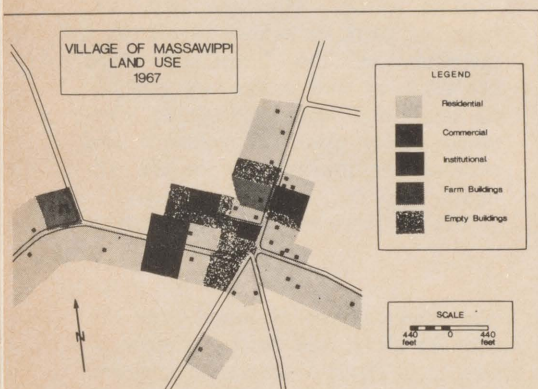
The interviews averaged about

A century ago several mills dependent upon water power clustered near the bridge in Massawippi. Today they are no longer there, and in the absence of any replacement the central part of the village is in effect a functional vacuum.





Compared with the province as a whole the four villages have higher proportions of people over 50 and a spotty representation of people between 20 and 40. Out-migration for greater economic opportunity and the attraction of rural villages for people of retirement age help to explain this pattern.



Industry and commerce have vacated the village during the past century, leaving a central zone of abandoned buildings and undeveloped land. At the same time there has been some growth of residential facilities on the periphery.

twenty minutes, but, on occasion, when the control of the conversation passed from the interviewer to a chatty informant, an hour or more of village history and gossip could easily unfold, to the accompaniment of coffee and cookies. On the other hand, a few interviews proceeded no further than the foot-in-the-door stage, when the students were mistaken for salesmen, process servers, or something worse. The rejections, however, were rare, and for the most part the attitude of the people of the villages was one of cooperation and warmth.

With the exception of Huntingville the four villages have slightly smaller populations now than a century ago, and, like the counties in which they are located, they have a higher proportion of older people than formerly. In this the villages exceed the county levels by substantial margins.

In Hatley and Massawippi the proportions of people over sixty years of age are between two and three times the county average. Whereas people over seventy constitute only four per cent of the population of

Quebec Province, one person in every five in Hatley is over seventy.

As one would expect there is also a high level of retirement in the villages. Table 3 reveals that 43 per cent of the heads of household in Hatley are retired, and over 30 per cent in Massawippi and Huntingville.

Top heaviness in age structure and a high level of retirement are symptoms of the economic and social malaise of many small villages today. The situation has come about partly through the out-migration of young and productive people, who find village life limited. The number of wage-earning opportunities is small, the occupational choices are few, and the chances of continued job training and promotion are slight. In addition, the village presents a limited social milieu in which the web of personal relationships and the range of cultural pursuits are restricted. Larger centers are better able to satisfy these needs, and they exert an attractive force which is most keenly felt by unmarried persons beyond school age, most of whom have already sampled the

TABLE 1
POPULATION ESTIMATES FOR THE NUCLEAR VILLAGES,
1863 AND 1967 (Source: O. W. Gray map of 1863
and village surveys 1966, 1967)

	1863	1967
Barnston	124	101
Hatley	136	108
Huntingville	87	278
Massawippi	130	78

TABLE 2
PEOPLE OVER 60 AS A PERCENTAGE OF TOTAL POPULATION
Source: Census of Canada, 1861, 1961;
interviews 1966, 1967

	1861	1961
Sherbrooke County	5	10
Stanstead County	8	11
Barnston village	—	13 (1967)
Hatley village	—	32 (1966)
Huntingville	—	18 (1966)
Massawippi village	—	25 (1967)

TABLE 3
OCCUPATIONS OF HEADS OF HOUSEHOLD 1967,
AS A PERCENTAGE OF ALL INTERVIEWED HEADS
(Source: village surveys)

	Retired	Farm work in or near village	Employed Non-farm work in village	Non-farm work outside village
Barnston	15	5	65	15
Hatley	43	13	14	30
Huntingville	30	0	20	50
Massawippi	35	10	25	30



The presence of a school may stimulate cultural activities and discourage out-migration from a village. Barnston (above) is the only village with a school operating today.

wider dimensions of city life during their educational process (only Barnston has a school). In the interviews job opportunity was the reason most often cited for out-migration, and marriage was next in importance.

About three quarters of all recorded out-migrants from the four villages are still living in the Province of Quebec, most of them in the Eastern Townships. Of those living in the Eastern Townships half are in six larger communities within twenty miles of the sending villages, namely Sherbrooke, Coaticook, Ayer's Cliff, Lennoxville, Waterville, and North Hatley, in order of the number of in-migrants received. Others have moved to more distant urban centers such as Drummondville, Victoriaville, and St. Hyacinthe. Those moving beyond the Eastern Townships have settled mainly in the Montreal area. Rarely has someone moved to a smaller village, but this has occasionally occurred when a particular occupational niche or business opportunity has become available: for example, one man moved to another small village

when he was able to buy a garage and service station. For the most part, however, the receiving centers are larger than the sending villages.

The economic opportunities which have attracted people into larger urban centers were available to a much greater extent in the villages a century ago. The opening paragraph of this article suggests that in Massawippi (which is by no means unique) there were jobs aplenty in 1867, at least twenty-one jobs for an estimated 30 resident families. Today the same village has perhaps a half dozen jobs available for nineteen families. There are indications too that other human needs were satisfied as well. Three of the villages had a school and a hotel, all contained at least one church and two villages had two, and in general the impression gained from contemporary descriptions is one of economic and social vitality.

As the villages have lost their capacity to employ their own residents, they have lost also their economic connection with the surrounding agricultural region. In 1867 the nature

of the rural transportation system, based as it was on horse or ox-drawn vehicles except in the main valleys where railways were located, ensured that the mobility of people and goods was limited. Farmers relied on nearby villages for many of their needs. They bought goods and sold products there, brought grain for milling, hides for tanning, lumber for sawing, and shoes, harnesses and vehicles for repair. But the grist mills, sawmills, tanneries, shoemakers, harness makers and sleigh makers have since disappeared, all replaced by larger, more efficient production units concentrated in the towns and cities. The small villages have declined as regional centers supplying goods and services, and have become more residential in nature.

Where do the farmers of the region now purchase food, household items, machinery and vehicles, fertilizers, and feeds? Where are facilities found for education, health, banking, and entertainment? Probably there has been an increasing dependence on mail-order purchasing, shop-

ping trips to large centers, and the services of agricultural cooperatives, but our survey did not seek the answers to these questions. Clearly a follow-up study could profitably examine the economic and cultural orientation of farm families towards the various villages and larger centers of the region.

The automobile has in a sense saved the villages from complete stagnation, by enabling residents to shop and to work some distance away. Table 3 shows that most of the non-farm jobs held by villagers are outside the villages rather than within them.

The four villages contain forty-nine commuters, of whom two-thirds work in Sherbrooke and Lennoxville (1961 populations 67,000 and 4,000 respectively). Not all the villages contribute equally to this labour market. Huntingville has the highest total number and per capita proportion of commuters, and Barnston has the lowest. This is to a large extent a function of distance. A daily return trip from Huntingville to Lennoxville requires about ten minutes, but from Barnston to Lennoxville demands 56 minutes.

Huntingville's convenient location near job opportunities in the Lennoxville-Sherbrooke area has undoubtedly been a factor in its rise from the smallest of the four villages in 1867 to the largest in 1967, and will continue to encourage growth. In Barnston, on the other hand, where commuting is inconvenient, growth will presumably be limited unless new jobs are created in the community.

People who have moved into Huntingville within the past ten years mentioned as additional attractions the English-speaking, Protestant nature of the community, the ready access to good schools in Lennoxville, and the proximity to fields and woods. In short, the community seems to combine the aesthetic and recreational rewards of country life with the intellectual and economic convenience of living near an urban center, all in a familiar linguistic-cultural milieu.

Not all the villages possess the same assortment of qualities, nor do they attract the same sorts of people. Recent in-migrants to Hatley and Massawippi, who tend to be older, sometimes retired, with children through school, emphasized the quietness of the rural scene and the familiar ethnic background, while attaching less importance to job and school opportunities.

Huntingville appears to be the most convenient of the four villages for people oriented to a Sherbrooke-Lennoxville commuting existence and with children of school or university age. Hatley and Massawippi have a greater attraction as retirement villages or places of summer residence. Barnston, with a school and a few small industries, has the youngest population of all the villages and employs all but two of its workers in the village. Despite these and other differences, the villages emerge from the study as essentially residential communities that have lost their former close attachment to the agricultural landscape and lost to the larger urban centers most of their econom-

ic vitality and social cohesiveness, as well as proportion of their youthful citizens. Huntingville alone has grown in the past century, adding to an early sawmilling function the role of dormitory suburb for the Sherbrooke-Lennoxville labour market.

How will the increasing centralization of the Protestant school system affect the life of rural villages? The new regional school at Lennoxville, which will draw high school students from an area of approximately 2000 square miles, will presumably reinforce the locational advantages of places like Huntingville to the detriment of smaller, more remote communities. In an educational sense the small villages are becoming increasingly barren as the years pass.

The same forces of urbanization that have brought about these changes during the past century are still in operation. The drift to the city continues, and in the villages one may observe "For Sale" signs on the service station, the general store, and on several stately nineteenth century houses. There are no takers.

* Ross, W. Gillies (ed.). "A Century of Change in Selected Eastern Townships Villages: Barnston, Hatley, Huntingville, Massawippi." Department of Geography, Bishop's University, Lennoxville, 1967. 64 pp.; maps, diagrams, bibliography. \$1.00.

The principal participants in the study were Miss J. E. Allen, Mr. J. B. Black, Miss S. J. Blais, Miss C. M. Greer, Miss A. E. Hoekstra, Mr. M. A. Jordan, Mr. P. J. E. Knox, Miss M. J. MacLean, Mrs. S. A. McConnachie, Mr. E. H. Northrup, Mr. J. R. Palmer, and Mr. R. Proulx. A point of interest is that nine of these students hold Class II Teaching Diplomas from Macdonald College.



While the village cores have disintegrated through abandonment or deterioration of buildings, some new residential growth has occurred on the peripheries. But only in Huntingville (above) has there been any substantial development.



At Hatley the church and school shown above were operating by 1833. Today the school is closed and one person out of five in the village is over 70 years of age. War memorial, historic buildings, and a cemetery containing the graves of pioneers, are monuments to the past.

working towards a truly Canadian "Canada's Food Guide"

All of us are familiar with the five broad categories outlined in Canada's Food Guide. By meeting the daily requirements of each category, every Canadian can be assured of a nutritionally adequate diet. Canada's Food



by
Mrs. Diana Henderson*
School of Food Science

Guide is the result of long careful studies on the nutritional demands of the body coupled with information as to the composition of foods available to Canadians. However, there is an important small segment of the Canadian population which cannot use Canada's Food Guide because of markedly different food sources. Our northern Indians and Eskimos eagerly anticipate raw ptarmigan complete with bones, succulent moose steak, buffalo stew, and tender boiled walrus. Fowl dinners feature plump snow geese, whistling swans and loons.

The Department of National Health and Welfare through the Quebec Department of Health is sponsoring a research project at Macdonald College to examine the composition of Arctic foods. Samples for study are supplied by the Department of Northern Affairs and National Resources. Both raw and cooked samples are studied in order to assess realistically the nutritional value of each food when eaten.

Eskimos at Rankin Inlet, N.W.T. under the supervision of the Department of Northern Affairs and National Resources are canning a number of products which are available for commercial sale in the Montreal area. Arctic char, trout, whale meat, and muktuk in several forms have been

packed in mustard, tomato sauces, or salt. If the nutritional welfare of our Indian and Eskimo population is not enough justification for launching a study on their dietary habits this recent activity at Rankin Inlet should more than provide the needed impetus.

Before the samples can be analysed, the meat which has been separated from the inedible portion is carefully ground three successive times in an electric mincer. After mincing, the sample is blended thoroughly with a known amount of water, and frozen. Over a period of from eight to ten hours, a vacuum pump slowly draws out the tiny ice crystals. When the moisture content has been reduced from the initial 70 - 85% to approximately 3%, the pump is stopped. The remaining substance feels and looks like cardboard with short stiff fibres matter together. In this freeze-dried form the samples are preserved without deterioration.

Tests to determine protein, fat, minerals, vitamins and calories are carried out on each freeze-dried sample. This information, when compiled, will aid the dietitian in the far north in her attempt to educate the Eskimos and Indians towards good nutritional standards and practices.

Macdonald College gets first automatic milk tester

An automatic instrument that determines the fat content of milk at the rate of 3 samples per minute has been installed in the Animal Products Laboratory at Macdonald College. This is the first automatic milk of this type to go into operation on this continent and the third in the world.

The new instrument will complement the Infra Red Milk Analyzer in the DHAS milk testing service. The new Danish-made equipment will test milk samples at almost 4 times the rate and with less total labour requirement than that presently being achieved in the DHAS milk testing laboratory. It does not however, provide information on solids-not-fat. An automatic protein testing unit, not yet on the market, has been ordered for delivery mid-summer of this year. This unit is being developed by the same Danish Company and will work simultaneously with the fat testing unit, without reducing the rate of testing below the 3 samples per minute.

* Technician and partial student,
School of Food Science.

Dr. Harold Klinck presented these ideas on the future of Cereal Crops in Quebec to the Montreal Farmers Club in March. This month, as farmers again return to the land, this article gives all of us some challenging ideas.

cereal crops in Quebec

what of the future?

by Dr. H. R. Klinck

Associate Professor of Agronomy,
Macdonald College President,
Canadian Seed Growers Association

where are we now?

We have in Eastern Canada an annual feed grain deficit of the order of 85 million bushels, over half of which occurs in Quebec. While this provides a market for the Western farmer, nevertheless there is a desire on the part of the Eastern farmer to become more efficient and more nearly self-sufficient in terms of feed-grain production. The increase in corn and barley production in Ontario during the past few years has alleviated the situation to some extent. Some considerable increase in corn production has taken place in Quebec as well, but the areas where grain corn can be grown in this province are limited. Barley acreages in Quebec have declined over the years and it is our opinion that farmers are looking for more satisfactory grain crops to grow. Weak straw, with consequent lodging, appears to be a contributing factor to the downswing of barley production and, while improvements have been made in straw strength, plant breeders have been unable to overcome this lodging problem completely while retaining high yield potential.

the alternatives

What are the alternatives, then, to barley and corn? There are approximately 1¼ million acres of oats grown annually in Quebec. This is a widely adapted, dependable, easily handled and easily fed crop, and one that is likely to be around for some years yet. Nevertheless, in terms of energy yield per acre, oats is among the poorer crops. It has been estimated that it requires a 50-bushel oat crop to provide the same amount of calories of energy as can be produced by 30 bushels of barley or 22 bushels of wheat.

What can be done to improve the lot of the farmer who must, or prefers to, grow oats? One obvious approach is to redesign the oat plant

to make it a more efficient energy producer. On the average, the fat content of oat grain is about 3% to 3.5%. Fat is a concentrated form of energy, a gram of fat providing about 2½ times as much energy as a gram of carbohydrates. Certain varieties of oats — not now commonly grown — contain fat in the range of 6% to 7%. A breeding program designed to double the fat content in a variety could result in significantly higher energy values without increasing the bushels per acre. There is also good evidence that the protein content of oats could be increased through breeding and this, associated with close attention to quality of protein, could result in further improvement. Ideally, then, oat varieties high in fat, and with a proper protein balance and shorter, stronger straw to permit heavier fertilizer application, would contribute greatly to our feed-grain supplies.

A second approach would be the introduction of higher yielding wheat varieties. Some of the winter wheat varieties already available are capable of yields in excess of 40 bushels per acre, provided they survive the winter. However, the winter-wheat area is similar to the grain-corn area and is limited in Quebec. What is required are much hardier winter-wheat varieties before this area can be extended. The new winter-wheat breeding program being initiated at the Provincial Agricultural Research Station at St. Hyacinthe could eventually change the whole picture.

In winter wheat, however, the breeder is faced with two objectives — winter hardiness and high yield. Either objective may be reached relatively easily as a separate entity, but in combination the problem is much greater.

An alternative program is the development of high yielding spring wheats, with a primary objective of energy yield. Very little effort has been expended over the years toward the breeding of high yielding feed wheats for the east. Canada's major efforts in wheat breeding have been to satisfy the requirements of the bread-wheat market, and such wheats are confined to the Prairie provinces, or the pastry-wheat market, largely in Ontario. Numerous problems have attended these programs. Minimum milling and baking quality standards must be met. Disease resistance — particularly rust resistance — is an ever-present necessity. Higher yields are considered desirable, but are difficult to achieve when the other restrictions are imposed.

feed wheats for Eastern Canada

A wheat-breeding program designed to develop feed wheats for Eastern Canada could place less emphasis on disease resistance and could ignore milling and baking quality standards. The major effort, then, could be placed on yielding ability and selection made on this basis. There is, however, one fly in the ointment. The efficiency and reliability of our present grain-grading system in Canada depends heavily on our ability to identify wheat varieties by morphological characteristics of the kernel. Thus, a potential new variety whose grain is identical to that of Manitou or Selkirk or Thatcher or any other recognized bread wheat, but which at the same time does not meet minimum milling and baking quality standards, is unlikely to be licensed and released for commercial production in Canada. The reasons for this are obvious. If such a variety was put into production and the grain became mixed with milling wheats it would not be detected until the weakness in quality was discovered by some processor who had purchased Canadian wheat. Canada's reputation in the foreign wheat markets of the world is second to none and the envy of many. It can only be preserved by a system which guarantees a quality product in every shipment.

Such a system, while highly desirable from the western viewpoint, creates a severe restriction to any wheat breeding program directed toward the development of feed wheats. In selecting his feed wheats, the breeder must insure that the grain is morphologically distinguishable from any and all of the 10 or 12 varieties currently accepted in the milling grades. This kind of restriction reduces his opportunities for finding high yielding selections.

We may have to live with this restriction for some years yet, but ultimately a solution will have to be found which will permit more freedom in wheat breeding programs.

re-design grain grading

One solution that has been suggested is the redesigning of Canada's grain grading system to permit the marketing of grain by variety rather than by class. At present the Red Spring Wheat class includes all milling wheats and the system is unable to exclude similar-appearing, non-milling wheats. A system based on

variety would recognize both types, even if they looked alike, permitting their direction into separate specific market outlets.

We have in Canada a seed pedigreeing system which can guarantee to every farmer in Canada a supply



Dr. H. R. Klinck

of seed of known variety and pedigree if he wishes to use it. This system involves a pedigree record which follows the seed from the plant breeder through several generations of carefully inspected production to insure that the variety is always genuine and pure. By carrying this scheme, or some modification of it, one step further, the harvested crop going to the western grain elevator would be recognized as to variety. The detailed mechanics would have to be worked out, but the basic systems exist — a world-renowned seed-pedigree scheme plus a world-renowned grain marketing system. A marriage between the two could result in a grain production and marketing system that would continue to be the envy of other nations and that would solve many of the problems of the plant breeder. An additional benefit would accrue in that new varieties with specific nutritional qualities, which may result from research in the next few years, could be marketed as a special item. This is not possible with the present system unless these va-

rieties have distinguishable kernel characteristics.

To return to potential high yielding feed wheats for Eastern Canada, a number of varieties which have been developed in the Mexican program under the Rockefeller Foundation were tested at Macdonald College in 1967. Some of these originated in Mexico; others in Argentina, Colombia, India, Pakistan, Egypt, etc. Out of 50 varieties tested, 40 were found to outyield Selkirk and Thatcher. Other tests have shown that wheats from Sweden and Germany have good potential in this country. It remains to be determined (a) whether or not these yields can be repeated in another season or two and at several locations, and (b) whether the highest yielding ones are distinguishable from milling wheats or are acceptable for milling grades.

To develop a new variety from scratch requires a minimum of 10 years. Thus a program started now may, with luck, provide superior varieties in 1978 or 1980. In the meantime, some of these foreign types may be introduced if it can be shown that they will be useful to the feed-producing farmer.

The same principle applies to the development of higher energy oats, although in this case we do not have the same marketing problem.

It is obvious from this discussion that we could be better off 10 or 15 years from now in terms of wheat and oat varieties. But what of the present? Yield data obtained in tests in the Montreal area in 1967, comparing the best commercially available varieties of oats, barley and wheat, reveals that on the basis of energy production per acre barley is still the best bet in many areas. On a comparative plot basis, Dorval oats yielded an estimated 1519 kcal of metabolizable energy (ruminants), Champlain barley yielded 1909 kcal, and Selkirk wheat provided 1321 kcal.

The wide adaptation of oats insures its future and we believe a program designed to improve the energy output of this crop is justified and, indeed, necessary. Barley is rather limited in its adaptation and will not outyield oats under all conditions, even on an energy basis. Wheat presents a challenge for the future and, as previously stated, very high yielding types exist. We have, however, to find the best ones for our conditions and to solve some of the problems associated with bringing them into commercial production in Eastern Canada. □

THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE BY
THE QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

three per cent interest rebate paid on 10,230 medium-term loans

*Compiled by
Tom Pickup
Information Service,
Quebec Department of
Agriculture and Colonization*

*Photographs by
Office du Film du Québec*

Mr. Clément Vincent, Minister of Agriculture and Colonization, has revealed that, in 1967, the Quebec Farm Credit Bureau, through its Farm Improvement division, agreed to pay 3% interest on 10,230 medium-term loans totalling \$21,904,840.91 obtained by Quebec farmers from chartered banks and savings and credit unions (Caisses populaires Desjardins and Caisses d'établissement de l'U.C.C.).

This rebate of 3% interest is granted under the Quebec Farm Improvement Act on loans obtained by farmers to buy certain types of livestock, farm implements, agricultural equipment or machinery, and to carry out various improvements to their land and buildings as specified in the act.

Payment of 3% interest rebate over the duration of the 10,230 loans approved in 1967 represents a financial commitment of \$2,189,212.73 by the Provincial Government. The rebate is paid to the farmer provided that his own repayments of interest and principal to the bank or credit union are not in arrears. The amount paid by the government in the form of 3% interest rebate on current loans in 1967 was \$1,787,022.28. A clause in the regulations to the Farm Improvement Act restricts the annual interest which a lender may charge on loans eligible for the benefits of the act to 6%.

Although 229 fewer loans were approved in 1967 for 3% interest rebate than in 1966 (10,230 as compared with 10,459) their total showed an increase of \$495,472.98 or 2.3% (\$21,904,840.91 in 1967 compared with \$21,409,367.93 in 1966).

Between January 1962 (when the act became operational) and December 31st 1967, 69,092 loans totalling \$129,409,107.82 qualified for the 3% rebate of interest and the number of farmers benefiting from it was 38,791. The government's commitments on behalf of farmers during this period was \$12,918,675.03, of which \$6,660,394.98 had already

been paid to them by December 31st 1967.

In its present form, the Quebec Farm Improvement Act allows a farmer to obtain benefits on more

Alar is a growth-regulating product that his combined outstanding balance does not exceed the maximum of \$7,000.00.

correction

A mistake was made in the article "Beef Cattle in Quebec" published in the Family Farm section of the February issue. The sixth paragraph beginning "After deducting the value of the owner's labour and interest on the invested capital . . ." should have read as follows:

Leaving out of account the value of the owner's labour and interest on the invested capital, the average net income per farm on which beef cattle were kept was \$2,152, the beef cattle being responsible for about one quarter of this income (or an average of only \$550).

This means that the figures of \$2,152 and \$550 for net income will be appreciably smaller if labour and interest are taken into consideration.

sterile moths control apple pest

Success was again achieved in 1967, the second year that sexually sterile insects have been used to control the codling moth in a commercially operated orchard, states Dr. M. D. Proverbs of CDA's Research Station here.

The percentage of harvested apples injured by codling moth was lower than in many orchards where chemical sprays were relied on. This very encouraging result was achieved despite a prolonged hot summer — just the sort of weather that is particularly favorable for rapid build-up of the codling moth, says Dr. Proverbs.



A large part of a farmer's capital is invested in his herd. The Quebec Government is studying the feasibility of introducing a livestock insurance plan. Above, Mr. Pierre St-Martin of Ville-Marie leads his cattle home.

eight projects of the Department of Agriculture and Colonization

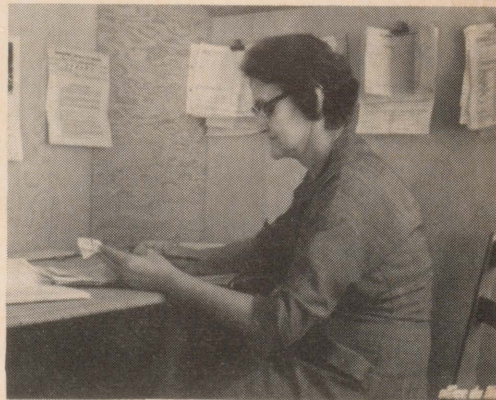
A number of projects and new government policies designed to strengthen Quebec's agriculture during coming months were announced by Mr. Clément Vincent to officials of the Union Catholique des Cultivateurs when they presented their annual brief to provincial authorities on February 14th. These measures are summarized below:

1. Complete revision of the Quebec Farm Credit Act;
2. General education to be made available to all farmers and special instruction to be given them by local teams of farm management specialists;
3. Land improvement on a very large scale through extensive and impartial use of heavy machinery;
4. Appointment of twelve regional coordinators in order to decentralize the Department's adminis-

tration and facilitate planning of agricultural production at the regional level in keeping with soil capabilities;

5. An agricultural policy specially intended to fit in with the ARDA programme and with federal financial cooperation;
6. The recent inauguration of large-scale marketing of "Quebec approved" meat;
7. Hastening of the study for a livestock insurance project — provided that the effectiveness of the crop insurance plan points to the advisability of introducing such a project;
8. Early completion of the reorganization of the Department and, as a result, the possibility for farmers to obtain valuable government services by applying directly to their regional offices.

Financial and other records are essential to sound management and the discovery of profitable and unprofitable enterprises. Here, Mrs. Georges Fortin of St-Jérôme, Lake St. John, attends to the farm book-keeping.



administration of Department of Agriculture and Colonization decentralized

As the third stage in the recent reorganization of the Quebec Department of Agriculture and Colonization, and in keeping with the policy to decentralize its administration, Mr. Clément Vincent has announced the appointment of twelve regional directors or "coordinators", as follows:

Mr. Jérôme Arcand (Lower St. Lawrence and Gaspé); Mr. Rodolphe Cloutier (Quebec); Mr. Marcel Chevrete (South of Quebec); Mr. Donat Grégoire (Nicolet); Mr. Léonel Bombardier (Eastern Townships); Mr. Gaétan Lussier (Richelieu); Mr. Jean Desjardins (Southwest of Montreal); Mr. Robert Samson (Ottawa Valley); Mr. Joseph Laliberté (Northwestern Quebec); Mr. Eloi Guillemette (North of Montreal); Mr. Ulysse Potvin (St. Maurice Valley); Mr. Edgar Tremblay (Saguenay-Lake St. John).

Under Mr. Lucien Bissonnette, recently appointed assistant deputy minister, these twelve men will be responsible for directing agricultural development in the context of overall provincial planning. They will work with interested groups, including regional economic committees and farm organizations, to coordinate agricultural development in their regions within the framework of sound optimum use of human and material resources and with the active participation of the local population immediately concerned. They will also be required to estimate the costs of realizing proposed objectives and to attend to the administrative aspects involved, and also to work out regional farm production programmes with the help of data provided by farm management groups.

The appointment of the twelve regional heads marks the essential phase in the reorganization of the Department of Agriculture and Colonization, namely its decentralization in order to focus a large part of its professional staff on the work of comprehensive planning and development, including the assessing of local potential, clarification of aims and regional programmes.

The decentralization will considerably increase the effectiveness of the Department's professional staff because they will be freed from the load of administrative work which has hitherto almost paralyzed them. These administrative tasks will henceforth be carried out by a parallel office organization linked with the Department's, which will attend to the details of the Government's assistance policies and subsidies for farmers.

farm management teams

In connection with decentralization of the Department and appointment of regional coordinators, at least 130 farm management teams will be established in their respective localities immediately. Between them, they will cover the whole province and will be distributed according to the number and concentration of farms. They will be under direct control of the regional coordinator. Their services to the farmer will include:

1. Costing (profit and loss study) and preparation of an information form from which preliminary but valid conclusions can be drawn about the main factors governing the farmers profits or losses, e.g. size of the enterprise, yields per acre and per animal unit, feeding efficiency, diversity of income sources, labour efficiency, and turnover of capital;
2. Survey of the farm, indicating needs and gaps in existing management (drainage, stone removal, liming, fertilizers, humus, etc.);
3. Preparation of an improved farming plan, taking into account climate, soil and other physical and biological conditions, the economic situation of the farm, the farmer's aims, and possibility of expansion;
4. Suggestion of an improved livestock and cropping programme;
5. Suggestion of a farm building or rebuilding programme in keeping with requirements;
6. Bookkeeping system;
7. Financing plan;
8. Recommendations for benefits under government aid policies;
9. Help in applying technical advice and in the use of credit sources and assistance.

the regional office

Staffs of regional offices consist of the coordinator assisted by specialists in each of the following branches of agriculture: management, economics, veterinary medicine, agricultural hydraulics (drainage), farm buildings, farm mechanics, extension, animal science, field crops, poultrykeeping, horticulture, domestic science, credit, administration.

The role of the regional office is to promote local farming interests by means of planning, the preparation and financial and scientific appraisal of projects, and the implementation of projects.

controlling growth of apples with chemicals

Alar is a growth-regulating product already in use for ornamental plants. Its use on apple trees has now been authorized and it is expected that growers will find it useful, and that it will become a very important tool for improving apple production.

Extensive tests by scientists of the Canada Department of Agriculture have shown that Alar (a dimethylamino succinamic acid), applied to the trees shortly after blossoming, does not hinder the growth of shoots but, amongst other things, can prevent apples from dropping before they are picked and increase their firmness, colour, and storage life.

This chemical has been used in experiments carried out in recent years on several varieties of apples, including McIntosh, Golden Delicious, and Winesap. On the basis of trials they have conducted at the research station at St. Jean, Quebec, with Cortland, Melba and other varieties, R.L. Granger and P.O. Roy are in agreement with N.E. Looney of the Summerland station in B.C. as to the usefulness of Alar. Looney mentions other beneficial effects of Alar revealed by trials.

It diminishes the size of the apples (especially at heavier rates of application). This makes Alar particularly useful for young McIntosh and Spartan trees, the size of whose fruit often leads to storage and marketing problems. Applications of Alar also stimulate formation of fruit buds and, in some trials, they have led to larger yields in later years.

In the course of their trials with Cortland, Granger and Roy found that apples from trees which had been sprayed with Alar in mid-July showed considerably less storage scald than is usually found on this variety. Incidentally, Cortlands are much more susceptible to storage scald when they are stored with McIntosh, as was done at St. Jean, where they were kept for 169 days under controlled atmosphere conditions. Only 6 per cent of the Cortlands which had been treated with Alar showed traces of scald, whereas 85 per cent of those not so treated were seriously scalded.

(From "La Terre de Chez Nous")

how queen bees mate in mid-air

A number of observers have seen the cometlike formations of drones chasing a queen honeybee "darting and swerving hither and thither", as Dr. C. G. Butler of the Rothamsted Experimental Station once put it. Sometimes the chase is conducted ten or more feet from the ground; sometimes only a few feet above it. This, Britain's leading bee investigator says, makes it very difficult to see what exactly is going on, but it is generally believed that the "comet" is formed of drones with the queen at its head.

When he wrote this several years ago Dr. Butler admitted that he had only seen this phenomenon twice and on both occasions the leading bees suddenly swooped down to the ground. By the time he reached them all he could find, he said, were a few rather dazed looking drones lying about in the grass. What happened aloft? Is the queen attracted to the drones as many apiarists have suggested or is their philoprogenitive instinct vice versa? And what more can be said of that "distinct, sharp cracking sound", a little explosion thought to be caused by the sudden, rapid eversion of the drones' sexual apparatus?

Some of these questions are answered in the current *Proceedings* of the Royal Entomological Society where Dr Butler gives a biochemical-ly detached account of what he calls observations and experiments on the two stimuli that cause drones to mount nubile honey-bees.

The aphrodisiacal attractant of the queen is a chemical called 9-oxodecenoic acid which can be extracted from mated females by ethanol immersions. By soaking a little ball of cotton wool in some of this stuff and exposing it on top of an 18-foot mast, drones were drawn to a site where, in addition, they found a number of captive queens. The sting chambers of some of these females were closed tightly whilst others were held open by a small U-shaped wire spring.

In a meticulous series of tests observed through field glasses, Dr. Butler concludes that drones mate when confronted by an open sting chamber and that emissions of 9-oxodecenoic acid act as an aphrodisiac. Not a romantic conclusion, perhaps, but one of scientific and possibly commercial value. For the bee at least it sounds more interesting than artificial insemination.

viruses to control insects

Because insects are killed by viruses scientists are studying viruses for possible use as a means of controlling insect pests.

Among the most promising are the viruses that kill two pests — the cabbage looper and the imported cabbageworm. These viruses occur naturally in most areas where the insects occur but the insect kill can be greatly increased by applying the virus to foliage just as one applies an insecticide.

Dr. R. P. Jaques, insect pathologist at CDA's Research Station here and formerly at the Research Station at Kentville, Nova Scotia, has studied these viruses for several years. He found that cabbage looper virus applied to leaves is soon made useless by sunlight and therefore several applications of the virus may be necessary to give adequate control over a whole season.

His tests have shown, however, that the virus of the cabbage looper applied to soil will remain active for long periods (in one test nearly half of the virus was infective six years after application to soil.) This virus residue in the soil contaminates the leaves of the cabbage, cauliflower, or other cruciferous plants grown in the soil and the cabbage loopers feeding on the plants are subsequently infected and killed. This suggests that virus applied to field soil at planting time may protect cruciferous plants for the entire season, says Dr. Jaques.

The prolonged persistence of the virus in soil is quite remarkable because most plant and animal viruses do not stay active very long in soil, outside the issue of the host, he adds. The insect viruses studied to date do not infect plants, humans or animals other than insects and therefore this residue of the insect virus found in soil is not harmful in any way. In fact, most insect viruses infect and multiply only in the tissue of one species of insect and this makes the viruses very safe insecticides.

Dr. Jaques says that a virus for one insect (the corn earworm) may be registered and on the market as early as 1969; the virus for the cabbage looper may be registered and available to the grower by 1972. Others will surely follow.

weed control



A corner of Mr. René Carbonneau's plantation of 3,000 pines and 5,000 spruce near Coaticook, Stanstead.

Competitive weeds and heavy grass retard the growth of young Christmas trees by consuming moisture and nutrients. They hamper establishment of transplants, deform young stock, and enhance rodent damage. Mowing and other mechanical methods for their removal are costly.

Most weeds, annual broadleaves and grasses and perennial grasses as well, can be effectively controlled in Christmas tree plantations with herbicides. The proper herbicide and right amount to use depend on the age and species of tree, the time of year, the condition of the site with respect to severity of weed infestation and soil conditions, and whether weed control is desired as a pre-plant, at outplanting, or a follow-up or "salvage" treatment.

FOR NURSERIES OR TRANSPLANT BEDS FOR BALSAM FIR, RED OR WHITE SPRUCE, SCOTCH OR WHITE PINE

Apply 2 lb ai/A of simazine@ (50 lb Simazine 4G*) in Fall or Spring prior to weed emergence. For small areas use 4 level tablespoons of Simazine 4G* per 100 square feet of bed. Application should not be made until after trees have been transplanted for one year or more. Seedlings should be at least three years of age before treatment.

AS A PRE-PLANT SITE PREPARATION TREATMENT FOR BALSAM FIR

Apply 6 lb ai of simazine@ per acre actually treated (7.5 lb Simazine 80W* or 150 lb of Simazine 4G*).

Apply as 24-30 inch-wide bands, 4 or 5 feet apart. As the actual area sprayed in bands will cover approximately $\frac{2}{5}$ of an acre, the 6 lb rate of simazine@ will cover about $2\frac{1}{2}$ acres of field. Application should be made in the early spring before the weeds have started to grow or at least while they are still small. Balsam fir may then be planted into these strips at any time later in the season. AS AN AT-PLANTING TREATMENT FOR BALSAM FIR

Apply 6 lb of simazine@ per acre actually treated (150 lb of Simazine 4G*) in 24-30" wide bands directly over the trees following outplanting. This may be done most conveniently by attaching a granular applicator to the tree planter.

* Trade name

@ active ingredient

AS A POST-PLANTING TREATMENT FOR SPRUCE OR PINE

Apply 4 lb ai/A of dichlobenil (8 lb of Casoron W-50* or 100 lb of Casoron G-4*). The W-50 spray should be applied during cold weather to minimize the volatilization losses; the granules may be applied during any time of the year.

AS A POST-PLANTING TREATMENT FOR BLUE, RED OR WHITE OR NORWAY SPRUCE, DOUGLAS OR FRAZER FIR, SCOTCH, RED OR WHITE PINE THAT ARE AT LEAST 3 YEARS OF AGE

Apply $2\frac{1}{2}$ lb ai/A of simazine@ (3 lb of Simazine 80W* or 65 lb of Simazine 4G*). Application may be made in bands directly over the trees

at any time following transplanting but buds should be dormant and new growth hardened off.

AS A POST-PLANTING TREATMENT FOR BALSAM FIR ONLY AT LEAST 3 YEARS OF AGE

Apply 6 lb of simazine@ per acre actually treated ($7\frac{1}{2}$ lb Simazine 80W* or 150 lb of Simazine 4G*). The same rate of application can be used for maintenance weed control in succeeding years. To treat individual trees at this rate use 2 level teaspoonsful per 5 sq. feet applied in a $2\frac{1}{2}$ ft diameter circle; or one level tablespoonful per 8 sq. ft. in a 3' 2" diameter circle.

NOTE: Where grass and weed competition is severe, or where there is excessively high soil organic matter, or where sites are wet, you may wish to try rates up to 12 lb ai of simazine@ per acre actually treated.

AS A SPOT-SPRAY "SALVAGE" TREATMENT

Apply amitrole@ (Amitrol* or Cyntrol*) or a mixture of amitrole@ and simazine@ (Amizine*). Use as a directed spray keeping the herbicide off the trees. Do not spray after bud-break or while the new foliage is soft. Consult label for rates and tree species.

(Trade and brand names are used only for the purpose of information. No guarantee of a product or its quality nor preference for its use to the exclusion of others which may also be suitable are implied.)

Prepared by T. R. Flanagan, Extension Weed Specialist, University of Vermont.

the first D.H.A.S. summary

by
Walker Riley

Information on dairy cow performance in the province of Quebec, that never before has been available, is now in hand. Summaries of characteristics of the 143 herds with a full year of testing on the Dairy Herd Analysis Service were completed during January.

The Average Cow in these 143 herds weighs 1,139 lbs. She is in milk 81% of the time, produces 10,008 lbs. milk worth \$491, containing 370 lbs. fat, 323 lbs. protein, and 489 lbs. lactose. After deducting feed costs, this milk was worth \$294. Per hundredweight, feed costs were \$1.99, and it took .91 hours work to produce it. She was fed 3,060 lbs. meal during the year, 3 tons of succulent feeds, and 2.3 tons hay. The average herd contained 33 cows and the average worker turned out 238,000 lbs. of milk.

But more valuable than the averages are the ranges of these figures. For this analysis, the 143 herds were divided into five 20% groups, while looking at each trait separately. Calculated this way, production per cow ranged from 7,249 lbs. to 12,442 lbs. and value of the milk from \$357 to \$615. Feed costs varied from \$1.64 per cwt. to \$2.45, and labour per cwt. from .51 hours to 1.62 hours. Succulents fed ranged from a third of a ton in the lowest group to 5.7 tons; hay from 1.35 tons to 3.32 tons, and meal from 1,860 lbs. to 4,370 lbs. The smallest herds had 20 cows, and the largest 52 cows. Weight of the cows ranged from 9,480 lbs. to 1,277 lbs. in the 20% group of heaviest cows.

But what are the characteristics of the most profitable herds? Are they the big herds or the little ones? The ones where meal was fed heavy or the ones which skimmed on feed? Large cows or small? Is it better to feed silage or hay?

On the 21 pages of figures before me, some answers stand out loud and clear. Very definitely, success is associated with high production per cow, whether measured in pounds milk, pounds protein, or pounds fat. Comparing the top group of herds averaging 12,442 lbs. with the bottom 20% which averaged 7,249 lbs., the top herds turned out \$600 worth of milk per cow, compared with \$377. After deducting feed costs, this milk was worth \$363 compared with \$220. Feed costs per cwt. for the top producers were \$1.90; for the bottom, \$2.20. It took .71 hours for the one group to produce 100 lbs. milk, the other took 1.32 hours. In the high producing herds, each worker turned out 281,000 lbs. milk; in the bottom group, 170,000 lbs.

In the top producing herds, 3,910 lbs. meal, 3.28 tons succulents, and 2.34 tons hay were fed on the average. In the bottom group, 2,150 lbs. meal, 2.33 tons silage, and 2.07 tons hay.

Looking at it from the standpoint of lowest feed costs, the 20% group which had feed costs of \$1.64 per cwt. milk, received 2,500 lbs. meal per year compared to the 3,210 lbs. for the herds in which the feed cost \$2.45. Rate of roughage feed was exactly the same for both groups, and it did not appear to make any difference if it were fed as hay or silage. But obviously, the quality of these feeds made a difference; the higher the percentage of energy in the ration from either roughage, the cheaper the feed costs per cwt. milk.

But do you have to be big to be good? The answer is No. Average production in the twenty-cow herds was 9,590 lbs. The large, 52-cow herds were only slightly ahead with 10,053 lbs. Feed costs were 8¢ per cwt. milk less in the small herds. But they lost out on labour. In small herds it took 1.37 hours per cwt., while they had it down to .73 hours in the big herds.

The message in these first-year DHAS summaries is quite clear. Get Good Before you Get Big. It is easy to see you are better off with 20 good, heavy producing, well-fed cows than with 33 less productive ones, poorly fed.

(from "Country Notebook")

centennial student centre

For years, Macdonald students have been fortunate in having one of the largest, least congested campuses in Eastern Canada. And for years, Macdonald students have yearned for more space — space in which to meet, relax, eat, talk, dance and recreate. This month the place is a reality as the new Centennial Centre prepares for its first visitors. They won't be disappointed.

The focal point in the lobby is a massive open concrete stairway. This leads to the 2nd-floor ballroom, lounges, cafeteria and meeting rooms. The main floor houses the book shop, a large reception area, a lounge and trophy alley. The lower floor is taken up with space for recreation, storage and a custodian's apartment. The offices of the student newspaper and yearbook are also on the lower floor.

As well as being a geographic and social focal point of the campus, the new centre should serve as an architectural bridge to the proposed buildings on the Macdonald Campus. To graduates and friends of the College, such a centre sounds too good to be true. Since it's now a reality, why not stop in? The air conditioning may make it even more difficult to leave!

McGill Convocation for 1968 will be held on Friday, May 31st. Graduation exercises for the Faculty of Education will be held on the Macdonald College Campus on Monday, June 3rd.

J. R. Steele to ARDA post

J. R. Steele, a 1952 graduate of Macdonald College, has been promoted from Rural Development Officer to Associate Director of the ARDA branch of the Ontario Department of Agriculture and Food. From 1961 to 1966, Mr. Steele was Agricultural Representative in Lanark County, Ontario.

Women's Institutes

NEWS AND VIEWS OF THE QUEBEC WOMEN'S INSTITUTES INC.

Edited by
Viola Moranville,
Publicity Convenor
Q.W.I.

BONAVENTURE — Black Capes:

A contest was held on Citizenship—name a famous Canadian Doctor. Roll call—"Prediction of Future for Women" this article was read by the Publicity Convenor. A letter was read from a foster child and picture of the child was shown. Donation made for special prizes to the New Richmond High School. *Caspedia*:—Prizes given for pupils at the New Richmond High School and St. Jules Convent. Money was sent to the Save the Children Fund. A President's banquet was held.

Matapedia:—An exchange of aprons was held by members. Nominating Committee was named. A most pleasant event was the presentation of a gift to our President Mrs. Patrick Chesser (something for her new home). Soup was served at the School. *Marcel*:—Soup served at the School. Roll call: Name a famous scientist or doctor. The February meeting marked the 20th anniversary of Marcel Branch. There was a Birthday Cake which was tastefully decorated in the Institute color, pictures taken—and among those present were two charter members—Mrs. Oliver Watt and Mrs. John Walker & Four Life Members—Mrs. Leonard Hayes, Mrs. Alvin Journeau, Mrs. Oliver Watt and Mrs. John Walker. A Valentine treat was given to English Classes at the Convent in St. Godfrey; the Convent in Port Daniel, and a chocolate cake donated by members to Mrs. Leonard Hayes, who had just come out of the hospital. *Port Daniel*:—Six members answered at the roll call with a Valentine verse. Pennies for Friendship were noted.

BROME—Austin:—The roll call was answered by twelve members and three visitors. A lengthy discussion on the F.W.I.C. amendments and the Civil Code act was discussed and approved. Report of Convenors followed by election of officers with two new convenors being named. Program was revised to be ready for the printers. The Home Economic Convenor had a large selection of hooked rugs on display. *Abercorn*:—Ten members and five visitors were present. Provincial Convenor of Citizenship, Mrs. Edythe Westover took the chair and installed officers and convenors for the year of 1968-69. A resolution made and passed for final papers to be

acquired for the purpose of acquiring deed for the W.I. Hall. The yearly reports showed a good amount of work accomplished in all departments. A copy of the Quebec Mosaic to be given to the Library at the Sutton High School. *Knowlton's Landing*:—Our annual meeting and eight members were present. The election of officers and convenors. Each convenor gave her own report. Suggestions were heard for raising money for the Branch. Letter was read from a former member who's husband is hospitalized in Waterloo—Mrs. L. Jacobs never forgets her old Branch. *South Bolton*:—Roll call was payment of dues followed by installation of officers and convenors. The yearly reports were heard and proved that the year was a most satisfactory one. A plaque in memory of the late Mrs. Bertie Perkins was shown and will be placed in the W.I. Hall at a later date. A copy of the Quebec Mosaic will be placed in the library in the W.I. hall.

CHATEAUGUAY-HUNTINGDON-

Dewittville:—Mrs. Keeler of the Chateaugay Valley Regional School Agricultural Department, spoke about Agricultural Education now available in this School. A play was chosen and will compete with Hemmingford W.I. in the spring. A winter Carnival was held in late February with prizes for costumes. Two books of tickets were purchased for Caledonian Games to be held at Ormstown—the proceeds are to aid three hospitals. *Dundee*:—A demonstration was held showing how to make a chair seat cover, made with folded square blocks. Many interesting discussions followed. *Hemmingford*:—Mr. R. Petch spoke on 'Recent Trends in Education in Quebec'. The subscription for the Family Herald was renewed for an adopted patient in the Douglas Hospital. Topics were chosen and presented for children in the Public Speaking Contest. *Howick*:—A discussion was held concerning an interview between Dr. Wilder Penfield and television personality Charles Templeton. His views on 'Present day life in Canada' and 'the Vanier Family Institute' were discussed. Fifty dollars was voted to help a family that had lost all belongings in a disastrous fire. Practical ideas were presented for discussion — New 'blow-up' furniture; 'Narking carpeting' and also, hints on fire prevention. A study to be made of the B.N.A. Act. *Huntingdon*:—Annual Meeting, roll call—Different ways to use Maple Syrup. Report of the Board Meeting held in Mont-real. *Ormstown*:—Plans were made

to send goods to Salvation Army via Pick-up Truck. Annual meeting with election of officers, convenors and presentation of program for 1968-69. *Aubrey-Riverfield*:—Annual Meeting with election of officers, several guests were present. The mystery parcel was won by Mary Templeton.

COMPTON—Brookbury:—Roll call, was payment of dues. One member had perfect attendance for the '67-68 year. Annual payment of Provincial fees, A.C.W.W. and F.W. I.C. Funds etc., A donation was made to a Cemetery for the husband of a member. Many cards of appreciation were read; one member displayed a beautiful hand-woven bedspread (one of several that she had made this winter). Discussions on the B. N.A. Act; the Resolution re-Trespassers; reports were heard concerning the annual board meeting and the Executive meeting. *Bury*:—Discussions on the Adult Education Classes to be held in Pope Memorial High School. Agriculture convenor held a contest—Name flower seeds; Home Economic convenor had a contest—On Food Preparation. Assistance was given to a family that had been burned out. *Canterbury*:—Donations were received, priced and sold. Two members had perfect attendance in this last year. The Program Committee was appointed. The following suggestions were presented (1) Appointment of a Work Committee; (2) Appointment of a sick committee; (3) Appointment of a Social Convenor; (4) a Birthday Box; (5) Lunches to consist of one item only; (6) Invite visitors for lunch period only. *East Angus*:—Roll call—a Home Remedy. A letter is to be sent to Mr. Gosselin M. L. A. re-tax on over-average 1 size Children's Clothes. Report was heard on the Executive meeting. *East Clifton*:—Mr. D. J. MacMillan, County Agronomist, was guest speaker. His topic was *Insurance*, this was an open meeting to which several visitors came. A question and answer period followed. Donations to the Quebec Service Fund and the East Clifton Cemetery Fund in memory of deceased members. *Scotstown*:—Roll call, payment of dues; report on the Executive meeting followed. Slides were shown and the reading of a broadcast which was to have been given by a member—but the tape was unfortunately lost so was not heard over the air.

MEGANTIC—Inverness:—Subscription to the C.A.C. was taken; Wool was given out to be knitted; remnants were sold—those left over are to be made into aprons. A copy of Quebec

Mosaic to be placed in the School Library. A doll's bed, made from an empty basket and complete with sheet, pillowcase, pillow and blanket was donated by a member and sold. *Kinross Mills*:—A new member was welcomed. Worked on convenors reports.

MISSISQUOI—Cowansville:—A letter of appreciation was received from the School for Retarded Children; donation was made to the Student's Loan Fund; held an interesting discussion on the present status of the Women's Institute; sold several copies of the Quebec Mosaic; gave a gift to a member who is moving to British Columbia and heartily welcomed a new member. *Dunham*:—A lecture was heard regarding 'The Heart' given by a local nurse; donations were sent to The Save the Children Fund and to the Student's Loan Fund; articles were brought in for the Cancer Cupboard and three new members were welcomed. A social worker told about the organizing of local classes for Retarded Children. *Fordeyce*:—Gifts were sent to shut-ins; copies of the Quebec Mosaic were sold; clothing was sent to the Butters Memorial Home for Retarded Children; subscription taken to the C.A.C., the United Nations, Health Magazine, Countrywoman, and the Federated News. *Stanbridge East*:—a donation was made to the Cooking Class of a local school; a knitted afghan was presented to the Red cross; two new members were welcomed. Prizes will be offered to all children in the County for a Tree Leaf Collection and a Bouquet of Wildflowers at the County Agricultural Fair.

PAPINEAU—Lochaber:—Cards are to be sent to several sick members and a box of fruit juices sent to an elderly member who has just returned from two weeks spent in the hospital. Some of the personnel of the Salvation Army came to collect boxes prepared of old clothing. Contest was held and prizes given for 'Best Valentine wrapped gift'. Decided to devote one-half hour of each meeting to discussing 'Confederation'.

PONTIAC—Bristol:—Two articles were given by convenors (1) 'The Housewife should be on a Salary,' and 'The ironing of sheets are forgotten'. Another article was 'Exercise helps fight Coronaries'. A Work-box started with each member making and donating an article which will be sold later. *Clarendon*:—An interesting talk on 'Physical Therapy' was heard; a donation of \$20 was voted to be used in the Therapy

Room also a donation to the Cup of Milk Fund. 18 face cloths, 130 pot holders, oven mitts and tea towels were donated to the Hospital. Lunch was served to the members of the Agricultural Society. *Fort Coulonge*:—A discussion on Ways and Means of Making Money for the W. I. This was Education Week so the President gave a reading entitled "Half-way House on the Way Back to School". Roll call—Name a Prime Minister of Canada with a short biography. *Shawville*:—It was decided to purchase a Food Blender for the Ade Memorial Home, and to give a donation to the Save the Children Fund. Mr. Gerald Avis, Guidance Counsellor, gave an interesting outline of the work that he was engaged in with pupils of that particular School; this was followed by a question and answer period. He was thanked by the President. *Wyman*:—the Publicity Convenor reported a 'Pennies for Friendship Parade'. A paper was heard on the origins of Valentine and Cupid.

QUEBEC—Valcartier:—Mrs. H. Banning and Mrs. H. Laughren gave reports on Semi-Annual Convention; reports from the various convenors showed an active year. Study periods are to be continued on 'The Canadian Constitution'. Sums were voted to each of two cemeteries in the parish. Fees were paid and Pennies for Friendship were remembered.

ROUVILLE—Abbotsford held their annual meeting—reports showed an interesting and active year.

ROUYN-NORANDA—Farmborough:—Roll call in the form of an exchange of surprise packages. A demonstration on renovating old furniture; thirteen Christmas Stockings sent to Indian Families at James Bay; two projects (1) a travelling apron with Centennial design to raise funds to be used for Christmas Stockings (2) a 'recipe' for 1968 with same theme as W. I. collect. *Noranda*:—seven ladies answered the roll call. The guest speaker for the evening was Miss Minuelle, who is the Counsellor and Guardian for the Indian children (which number sixty) who are attending School in Noranda. These children range in age from thirteen to seventeen and come from Fort George. Miss Minuelle showed a number of beaded articles which the Indian women make; orders were taken for a number of necklaces, earrings, bracelets, etc. Project activity right now is 'quilting'—these to have a drawing later on. *Rouyn*:—Roll call—each member was asked to name an association to which she belongs and to tell of a posi-

tion that she has held in it. Sister André conducted a tour through the new Nursing School for the members.

STANSTEAD—Ayers Cliff:—Annual reports of officers and convenors were given, also the report of County Executive meeting. A donation was given to assist buying materials for a special class at the School. **Hatley:**—It was decided not to exhibit in the 'Special' by Dominion Textile Company at the Stanstead County Fair held in the Fall at Ayers Cliff. Several mem-

bers purchased copies of the Quebec Mosaic. Gifts and money donated to the children at the Dixville Home for Retarded Children. Mittens were sent to Maplemount Children's Home at Cookshire. **Stanstead North:**—Roll call was payment of dues. A very interesting discussion was held concerning the resolution re:- Trespassers; the program for the coming year was presented and accepted; a most interesting report on the County executive meeting was given by Mrs. B. A. Hill. It was voted to assist in

sending a delegate to Michigan in September. An amusing and informative letter was read by Mrs. Whitehouse from a pen-pal in Stanstead, England. Mrs. Whitehouse showed a beautiful collection of dolls that she had dressed, completely by hand, and in a most detailed fashion. These will be sent to various homes and hospitals for crippled and retarded children, as well as to children who are in hospitals for only a short time. These dolls are complete in every detail and are certainly a work of love on the part of Mrs. Whitehouse. Viola Moranville
Provincial Convenor of Publicity

semi-annual meeting

The County President's Meeting at the Semi-Annual meeting of the Quebec Women's Institute held at the 'Y' was attended by representatives of 18 Counties. Mrs. Ossington the Q.W.I. President spoke briefly to the ladies. With this remainder to the ladies—'discuss your problems—check if memberships are gaining or losing—remember that we cannot hold a group together without someone taking an office or responsibility'. Name your Chairman, secretary, and carry on.

Vi. Moranville (who was filling in for Mrs. G. Hatch—president of Stanstead County) was named as chairman. Miss E. Smith of Lennoxville was the secretary. It was a jolly, friendly group but nevertheless a very business like group.

1st question. — How to encourage members to take over an office in the Branch or at the County level?

Ans:—Take the Leadership Course is the 1st choice. Suggest a Course in Public Speaking. One President said that they had much help from a Leadership Course—so said one of her members.

2nd question:—How do you make meeting interesting?

Ans:—Suggestions—contests—flowered arrangements in saucers, bottle tops etc; specials for bridge tables etc. Another—put names in a hat—the name that is drawn puts on a half-hour program at the next meeting. 3rd question—What do you do if your County President is late (visiting a branch meeting).

Ans:—Start your meeting on time.

4th question:—One County President asked if it was not advisable for the County President (in making her Branch visits) to be at the entire

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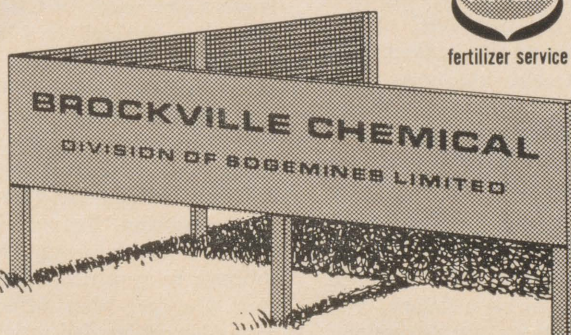
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meeting instead of there only for the program?

Ans:—The County President should be at the entire meeting *unless* she particularly asks to come in *after* the business portion is completed.

5th question:—May County Convenors vote on motions?

Ans:—Certainly they can; also—the Branch Delegates—plus their Branch Presidents and Secretaries. (The Branch president and Secretary are not under obligation to vote as their official delegate is voting — but it is customary).

6th question:—If the Branch Officers are all going back in office—is it necessary to have a Nominating Committee?

Ans:—Regardless if all officers are going back in—it is necessary to have a Nominating Committee appointed, and reported via publicity.

7th question:—What do you do if your Vice-Presidents will not step-up?

Ans:—This is the *Only Time* that a Vice-President can be removed—but after three years if they will *not* step-up—they should be de-moted.

8th question:—Do we send Branch money direct to Q.W.I.?

Ans:—Send monies to County Treasurer clearly marked for Provincial and name the specific Fund.

9th question:—How do we speed up meetings?

Ans:—Start on TIME and keep it to the business at hand. Perhaps open with dessert. All correspondence to go to Branch SECRETARY's not to the Branch Presidents—but in the County—to go the the County PRESIDENT.

'why get ill from foods'?

You probably know somebody, perhaps a whole family, who has suffered from distressing attacks of nausea, vomiting, diarrhea, stomach pains. If not, perhaps you have read newspaper reports of such miserable experiences coming as a sequel to a wedding breakfast, a picnic or a church supper. Or you may have heard of deaths due to a rare form of food poisoning known as "botulism".

Outbreaks of illness of this kind are nearly always recognized as food poisoning caused by certain bacteria.

Many kinds of bacteria can grow in foods if the foods are kept warm

enough and contain enough moisture. Only a few can cause illness. They do this in one of two ways: (1) When food is eaten after bacteria has had a chance to multiply in it, a sufficient number of them may be present to overcome our "natural defences". The bacteria invade tissues lining the stomach and intestines. This causes inflammation which leads to abdominal pain, vomiting, diarrhea, perhaps fever. The enteric-fever group of bacteria behave in this way. The best-known ones in this country are Salmonellae. (2) Other bacteria may produce poisonous substances called "toxins" as they grow in foods. Being tasteless, the toxins cannot be detected when eaten. The toxin formed by the Staphylococcus bacteria causes vomiting, nausea, diarrhea, prostration. It can develop in many different kinds of foods.

The bacteria responsible for botulism produce a toxin that causes a form of paralysis which may lead to death. Fortunately, this has been a rare disease. The botulism bacteria grow best in foods from which air is excluded. Most cases of botulism result from the toxin that forms in



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improperly processed home-canned foods. There are a few cases on record of deaths from botulism resulting from improper processing of commercially prepared foods, but in general no safer food can be found than those which have been canned commercially. A few other bacteria can produce toxins but they are of less importance than the two already named.

Before a food can cause food poisoning of bacterial origin, these things must have happened:—

1. The food must have become contaminated by the right kinds of bacteria. The usual avenues of contamination are:—the use of unpasteurized milk or dairy products when preparing other foods (Staphylococci often are present in the cow's udder and survive in unpasteurized milk products); the use of uninspected meat from diseased animals; preparation of foods in unsanitary factories or in a dirty kitchen; handling with unwashed hands or by people suffering from infected cuts or "boils", bad coughs, diarrhea; exposure to flies, rats, mice or other vermin, or to dust.

2. After contamination, the bacteria must have had a chance to multiply and toxin producers must have had time to produce toxin.

3. Dangerous bacteria only grow and produce toxin if: (a) the food is a suitable kind and is moist enough; (b) the food is kept at temperatures higher than 50° Fahrenheit; (c) the food remains at temperatures warmer than 50° F. for four hours or more. To keep foods safe from the threat of bacterial food poisoning they must be given proper care from production source to the table. This involves the producer, the factory, the distributor, the retail store and most of all—the housewife.

The officers of the Food and Drug Directorate of the Department of National Health and Welfare, in collaboration with other Government agencies, food producers, manufacturers and retailers, continuously try to assure that Canada's foods as offered for sale are safe and wholesome. But the consumer must do his part from there on. If the housewife attends to the simple rules listed below she will do much to reduce the risk of food poisoning. 1. Buy from reputable dealers: Patronize only clean stores. 2. Ask for meat that bears an official stamp of Government Approval. 3. Remember that vacuum-packaged meat is perishable and must be kept refrigerated. 4. Do not buy foods supposed to be frozen but which are thawed.

5. After marketing, place frozen foods in the freezer compartment of your refrigerator or in a deep-freeze unit until ready for use. 6. Do not allow foods to go through a "thaw-freeze-thaw" sequence. 7. Heat pre-cooked frozen foods, like TV dinners and meat pies, also stuffed poultry, for the time and temperature recommended on the labels. **READ THE LABELS.** 8. After preparing foods containing eggs, meat, milk, gravy, salads with dressing: serve them within two hours or else refrigerate. 9. Refrigerate "left-overs" from prepared dishes within an hour and keep refrigerated until re-serving or re-heating. 10. Do not prepare sandwiches or "picnic" dishes, buffet luncheons, etc., more than four hours before they will be eaten unless you refrigerate the foods. 11. Avoid, if possible, making up sandwiches if you have infected cuts or a bad cough. 12. If canning foods at home: (a) Always follow professional directions carefully; b) Never can non-acid foods such as meat, fish, meat-vegetable mixtures, soups, or non-acid vegetables like beans, peas, asparagus, corn, etc., unless a pressure-cooker, properly attended, is used. 13. Do not eat foods that have an "off" flavour. 14. Keep everything about your kitchen clean. 15. If you or your family think you have suffered food poisoning, report it immediately to a local health agency. Call a doctor if the illness is severe.

Proper refrigeration of perishable foods (other than fresh fruit and vegetables) is the most important way to avoid food poisoning. The housewife (and restaurant operator) can help reduce food poisoning a great deal by attending to this.

Remember, cooking of foods gives no guarantee of safety! Cooking temperatures will kill most bacteria, but the staphylococcus toxins will not be destroyed. You must prevent the bacteria from having opportunity to produce their poisons in food. **HEALTH IS WEALTH.**

Olive M. Wallace
Provincial Convenor
of Home Economics.

student quarters

Additional married student quarters are currently under construction at Macdonald College. These new 32 apartments will supplement the recently built 28 apartments. This approximates the accommodation which was formerly available in the huts. Completion of the new units is expected by September.

I protest

*When I look at the slices of bacon
[and ham,
Arranged in the butcher shop.
I think pigs are fed upon diamonds
[and gold,
Instead of those buckets of slop.
Whenever I manage to finance some
[ham,
(I really don't mean to be funny)
That good smokey taste has been left
[in the store,
And I feel like I'm eating my money!
My days don't start right without
[fresh eggs and ham,
I hate to face mornings of mush!
To me, eating eggs — WHAT! NO
[HAM? is much worse
Than a Fuller Brush Man with No
[Brush!
I guess if I want to eat ham every
[day,
I'll have to beg, borrow or steal;
NO! I won't turn to Charity, Credit or
[Crime!
Tell me, what do they charge for the
[squeal??
(taken from a Farm Journal)*

handicraft competition 1968

- (1) TOY — any kind.
- (2) TELEPHONE BOOK COVER — any material.
- (3) SIX GREETING CARDS — original design.
- (4) CARD TABLE COVER — any material.

Prizes — 1st \$3.00
2nd 2.00
3rd 1.00

You may use any craft in all sections and originality will count in all

Please enclose your name and address, name of branch and county on a card and enclose in an envelope attached to your exhibit; to be used after judging.

All exhibits to be sent to the Q.W.I. Office, Box 232, Macdonald College, Quebec, by June 3, 1968 the deadline

The usual handicraft display will be held, no prizes. You may send 2 to 4 articles from each branch that have been made by your members during the year, by the same date. Do not send with your delegate.

(Mrs.) O. M. Wallace
Provincial Convenor
Home Economics